

ATTACHMENT J1

Dobbins ARB Electric Distribution System

TABLE OF CONTENTS

| | |
|--|-----------|
| DOBBINS ARB ELECTRIC DISTRIBUTION SYSTEM | I |
| J1 DOBBINS ARB ELECTRIC DISTRIBUTION SYSTEM..... | 2 |
| J1.1 DOBBINS ARB OVERVIEW..... | 2 |
| J1.2 ELECTRIC DISTRIBUTION SYSTEM DESCRIPTION..... | 3 |
| <i>J1.2.1 Electrical System Fixed Equipment Inventory.....</i> | <i>3</i> |
| J1.2.1.1 Description..... | 4 |
| J1.2.1.2 Inventory | 5 |
| <i>J1.2.2 Electric Distribution System Non-Fixed Equipment and Specialized Tools</i> | <i>7</i> |
| <i>J1.2.3 Electric Distribution System Manuals, Drawings, and Records.....</i> | <i>7</i> |
| J1.3 SPECIFIC SERVICE REQUIREMENTS..... | 8 |
| <i>J1.3.1 Replacing Overhead Electric with Underground Electric.....</i> | <i>8</i> |
| <i>J1.3.2 THREAT Compliance.....</i> | <i>8</i> |
| J1.4 CURRENT SERVICE ARRANGEMENT..... | 8 |
| J1.5 SECONDARY METERING..... | 9 |
| <i>J1.5.1 Existing Secondary Meters</i> | <i>9</i> |
| <i>J1.5.2 Required New Secondary Meters.....</i> | <i>10</i> |
| J1.6 MONTHLY SUBMITTALS..... | 10 |
| J1.7 ENERGY SAVING PROJECTS..... | 11 |
| J1.8 SERVICE AREA..... | 11 |
| J1.9 OFF-INSTALLATION SITES..... | 11 |
| J1.10 SPECIFIC TRANSITION REQUIREMENTS..... | 11 |
| J1.11 GOVERNMENT RECOGNIZED SYSTEM DEFICIENCIES | 12 |

List of Tables

| | |
|---|----|
| Fixed Inventory..... | 5 |
| Spare Parts | 7 |
| Specialized Vehicles and Tools..... | 7 |
| Manuals, Drawings, and Records..... | 7 |
| Existing Secondary Meters | 9 |
| New Secondary Meters..... | 10 |
| Service Connections and Disconnections..... | 11 |
| System Deficiencies..... | 12 |

J1 Dobbins ARB Electric Distribution System

J1.1 Dobbins ARB Overview

Dobbins ARB is located in northern Georgia between the cities of Marietta and Smyrna, approximately 16 miles northwest of downtown Atlanta. The U.S. Government purchased the original acreage for the base in 1943. During normal work weeks, the personnel strength of the 94th Airlift Wing at Dobbins totals approximately 200 Air Force Reserve technicians and 300 federal civil service employees. During Unit Training Assembly weekends, the number of on-base personnel swells, as more than 1,500 reservists from Georgia, Alabama, Tennessee and the Carolinas, who are assigned to the 94th Airlift Wing, travel to Dobbins ARB to complete their training requirements and duties.

Collocated with Dobbins ARB are the Naval Air Station, Atlanta, located on 181 acres southwest of the base, and Air Force Plant No. 6, an aircraft manufacturing plant located north of the base which is leased and operated by Lockheed-Martin Aeronautical Systems Corporation.

| Size of the Base: | |
|--------------------------|-------------|
| Dobbins ARB | 1,666 Acres |
| | |
| Total Acreage | 1,666 Acres |

Dobbins ARB occupies 1,666 acres and has 142,393 linear feet of roadways. According to the 1998 real property records, the base owns, operates, and maintains approximately 260 facilities and 97 buildings. The 97 buildings occupy 960,923 square feet. There are 5 MFH buildings, however these are currently unoccupied.

| Location | Commercial/Industrial Facilities | Family Housing Units |
|-----------------|---|-----------------------------|
| Dobbins ARB | 260 | 5 |

History

The installation's original 2,843-acre tract was acquired by the U.S. Government in 1943 for use by Bell Aircraft Corporation as a B-29 "Super Fortress" assembly site. The resultant airfield, temporarily known as Rickenbacker Field, was maintained by an Army Air Force caretaker detachment after Bell's operation ended in 1947. In 1951, the base was renamed Dobbins Air Force Base and in 1959 Naval Air Station Atlanta was commissioned on the same base.

Current Mission

Both the peacetime and wartime missions of the 94th Airlift Wing are global in scope. If mobilized during wartime, 94th Airlift Wing comes under control of the Air Combat Command (ACC), where it would provide the combat delivery portion of ACC's airlift mission within a theater or forward area of operations.

For its peacetime mission, the 94th Airlift Wing is tasked with recruiting, organizing and training Air Force Reservists to prepare them for mobilization, and active duty in time of war, national emergency or when required to maintain national security.

Mission Statement

The mission of the 94th Airlift Wing is to maintain operational readiness for the airlift of personnel, supplies and equipment into prepared or unprepared areas by landing or airdrop.

Educational Facilities

N/A

Future Changes

The future Military Construction Program (MCP) at Dobbins ARB results only in minor load growth. The following table outlines future projects at the base.

| PROJECT NUMBER | PROJECT DESCRIPTION |
|-----------------------|---------------------------------------|
| FGWB920024P1 | Revitalize Primary Electric, Phase 1 |
| FGWB920024P2 | Revitalize Primary Electric, Phase 2 |
| FGWB940005 | Repair Electrical Manholes |
| FGWB949005 | Upgrade Electrical Distribution |
| FGWB940052 | New Transportation Proficiency Center |
| FGWB019001 | New Visiting Airmen Quarters |

J1.2 Electric Distribution System Description

J1.2.1 Electrical System Fixed Equipment Inventory

The Dobbins ARB electric distribution system consists of all appurtenances physically connected to the distribution system from the point in which the distribution system enters the Installation and Government ownership currently starts to the point of demarcation, defined by the Right of Way. The system may include, but is not limited to, transformers, circuits, protective devices, utility poles, ductbanks, switches, street lighting fixtures, and other ancillary fixed equipment. The actual inventory of items sold will be in the bill of sale at the time the system is transferred. The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the distribution system. The Government makes no representation that the inventory is accurate. The Contractor shall base its proposal on site inspections, information in the technical library, other pertinent information, and to a lesser degree the following description and inventory. Under no circumstances shall the Contractor be entitled to any service charge adjustments based on the accuracy of the following description and inventory.

Specifically excluded from the electric distribution system privatization are:

- Airfield Lighting, to include the lighting vault, runway and taxiway edge markers, approach indicator lights, etc.
- Generators, to include transfer panels and disconnect devices
- Traffic Lights

J1.2.1.1 Description

Dobbins ARB receives electricity from Georgia Power Company (GPC) via the Lockheed Substation (Owned and operated by Lockheed Martin). The Lockheed substation is located on the north side of Air Force Plant No. 6 (an aircraft manufacturing plant operated by Lockheed Martin Aeronautical Systems Corporation). The power from the Lockheed Substation enters the base via one of two feeders (#17 is the primary feeder, and #18 is a back-up) and distributed over the government-owned equipment. The nominal distribution voltage to Dobbins from the Lockheed substation is 12.47 kV Delta. The voltage is regulated to 11.97 kV at the point where Dobbins ARB takes over ownership.

Power is measured at 23 locations other than the master meter for reimbursable tenant organizations. The locations include the Credit Union; Civil Air Patrol Trailer; House S-145; POL Truck Park; North/South Runway Pole H36, U-125 Building Pump Station, BX, and several other Army National Guard, Marine, and Naval Air Station facilities located within the installation boundaries.

The typical construction method for the system is overhead routed aluminum cable on conventional wood pole/wood cross-arm structures. The majority of the government owned distribution feeder is overhead, although there are several areas of underground power near the aircraft pavements and recently constructed or renovated buildings. The typical phase conductors used for the underground lines is #4/0 AL in conduit.

A government-owned, electronically controlled 3-shot circuit recloser and regulator bank is located adjacent to Industrial Drive north of Building 530 (BX). The recloser provides the main feeder fault protection for the system. Further protection on the system is provided by either fused cut-out or gang-operated switching devices at various locations on the base.

Current Electrical Demand

According to electrical consumption and billing records provided, the usage for FY 98 at Dobbins ARB is as follows:

FY 97 Total Annual Consumption 18,746,752 kWh
FY 97 Average Daily Consumption 51,361 kWh
FY 98 Total Annual Consumption 19,608,557 kWh
FY 98 Average Daily Consumption 53,722 kWh

Comparison of these records indicate the FY 98 kWh usage was approximately 4% higher than the FY 97 usage.

Electrical System Capacity

The base electrical distribution system consists of a single radial feeder. Capacity at the Lockheed Martin substation is 60 MVA. Per discussions with personnel at Lockheed Martin, the substation is loaded at approximately 60% of the transformer capacity (3 each, 3/20 MVA) during peak load.

The MILCON Plan provided does not indicate any large-scale expansion projections requiring large upgrades to the electrical system. The plan indicates that any new construction will likely be offset by demolition of older facilities. Therefore, the existing distribution system should be adequate to cover the projected demand, including the long-range plans.

J1.2.1.2 Inventory

Table 1 provides a general listing of the major electrical system fixed assets for the Dobbins ARB electrical distribution system included in the sale.

TABLE 1
Fixed Inventory
Electrical Utility System, Dobbins ARB

| Component Item | Size | Quantity | Unit of Measure | Material Type ¹ | Approximate Year of Installation |
|---|---------------|----------|-----------------|----------------------------|----------------------------------|
| Primary Overhead Circuits | | | | | |
| 3ph, 4w, 15 kV Conductor | AWG #2 | 23 | W.Mile | CU | 1952 |
| Primary Underground Circuits | | | | | |
| High Voltage Cable 3ph, 4w, 15kV, In Conduit | AWG #4/0 | 12,500 | LF | AL | 1970 |
| High Voltage Cable 3ph, 4w, 15kV, In Conduit | AWG #4/0 | 4,800 | LF | AL | 1998 |
| Secondary Underground Circuits | | | | | |
| 3ph, 3w, In Conduit | AWG 500 kcmil | 9,700 | LF | AL | 1974 |
| Electric Utility Poles | | | | | |
| Electric Utility Pole | 40 ft. | 154 | EA | Wood | 1952 |
| Electric Utility Pole | 40 ft. | 25 | EA | Wood | 1979 |
| Electric Utility Pole | 40 ft. | 25 | EA | Wood | 1990 |
| Elevated Street Lights | | | | | |
| High Pressure Sodium | 400 Watt | 81 | EA | | 1972 |
| Switchgear | | | | | |
| Disconnect Switch, gang operated | 15kV | 3 | EA | | 1979 |
| Switchgear, load interrupt switch, | 600 AMP | 1 | EA | | 1998 |

| | | | | | | |
|-----------------------------------|--|-----------|----|----|------------|------|
| 600 amp, 2 position, NEMA 1 | | | | | | |
| | | | | | | |
| | | | | | | |
| Protective Devices | | | | | | |
| Fuses | | <200 AMP | 11 | EA | | 1979 |
| Recloser | | 15 kV | 3 | EA | | 1979 |
| | | | | | | |
| | | | | | | |
| Electric Meters | | | | | | |
| 1 ph & 3ph, 120-480v | | | 23 | EA | | 1979 |
| | | | | | | |
| | | | | | | |
| Manholes | | | | | | |
| Manhole | | 6'x10'x7' | 1 | EA | | 1998 |
| | | | | | | |
| | | | | | | |
| Transformers, Single Phase | | | | | | |
| Single Phase | | 10 kVA | 4 | EA | Pole Mount | 1974 |
| Single Phase | | 10 kVA | 5 | EA | Pole Mount | 1998 |
| Single Phase | | 15 kVA | 2 | EA | Pole Mount | 1974 |
| Single Phase | | 15 kVA | 2 | EA | Pole Mount | 1998 |
| Single Phase | | 25 kVA | 6 | EA | Pole Mount | 1974 |
| Single Phase | | 25 kVA | 3 | EA | Pole Mount | 1998 |
| Single Phase | | 37.5 kVA | 10 | EA | Pole Mount | 1974 |
| Single Phase | | 37.5 kVA | 4 | EA | Pole Mount | 1998 |
| Single Phase | | 50 kVA | 15 | EA | Pole Mount | 1974 |
| Single Phase | | 50 kVA | 8 | EA | Pole Mount | 1998 |
| Single Phase | | 75 kVA | 20 | EA | Pole Mount | 1974 |
| Single Phase | | 75 kVA | 3 | EA | Pole Mount | 1998 |
| Single Phase | | 100 kVA | 19 | EA | Pole Mount | 1974 |
| Single Phase | | 167 kVA | 3 | EA | Pole Mount | 1974 |
| | | | | | | |
| | | | | | | |
| Transformers, Three Phase | | | | | | |
| Three Phase | | 75 | 1 | EA | Pad Mount | 1960 |
| Three Phase | | 112.5 | 2 | EA | Pad Mount | 1972 |
| Three Phase | | 150 | 3 | EA | Pad Mount | 1986 |
| Three Phase | | 225 | 1 | EA | Pad Mount | 1980 |
| Three Phase | | 225 | 2 | EA | Pad Mount | 1982 |
| Three Phase | | 225 | 1 | EA | Pad Mount | 1987 |
| Three Phase | | 225 | 1 | EA | Pad Mount | 1988 |
| Three Phase | | 225 | 1 | EA | Pad Mount | 1990 |
| Three Phase | | 300 | 2 | EA | Pad Mount | 1978 |
| Three Phase | | 500 | 1 | EA | Pad Mount | 1978 |
| Three Phase | | 500 | 1 | EA | Pad Mount | 1980 |
| Three Phase | | 500 | 1 | EA | Pad Mount | 1982 |
| Three Phase | | 500 | 2 | EA | Pad Mount | 1983 |
| Three Phase | | 500 | 2 | EA | Pad Mount | 1984 |
| Three Phase | | 500 | 1 | EA | Pad Mount | 1993 |
| Three Phase | | 500 | 1 | EA | Pad Mount | 1994 |
| Three Phase | | 500 | 1 | EA | Pad Mount | 1998 |
| Three Phase | | 750 | 1 | EA | Pad Mount | 1986 |

| | | | | | | |
|--|--|------|---|----|-----------|------|
| Three Phase | | 1000 | 4 | EA | Pad Mount | 1993 |
| Three Phase | | 2000 | 1 | EA | Pad Mount | 1978 |
| Legend: EA – Each LF – Linear Feet Ph – Phase KVA – Kilovolt-Ampers AWG – American Wire Gauge CU-Copper AL-Aluminum | | | | | | |
| Notes: 1. Drawings furnished by Dobbins ARB do not always indicate material types. Some material types have been assumed and may not necessarily reflect the actual material in place. | | | | | | |

J1.2.2 Electric Distribution System Non-Fixed Equipment and Specialized Tools

Table 2 lists other ancillary equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the purchase. Offerors shall field verify all equipment, vehicles, and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment, vehicles, and tools.

TABLE 2
Spare Parts
Electrical System, Dobbins ARB

| Qty | Item | Make/Model | Description | Remarks |
|-----|------|------------|-------------|---------|
| | None | | | |
| | | | | |

TABLE 3
Specialized Vehicles and Tools
Electrical System, Dobbins ARB

| Description | Quantity | Location | Maker |
|-------------|----------|----------|-------|
| None | | | |

J1.2.3 Electric Distribution System Manuals, Drawings, and Records

Table 4 lists the manuals, drawings, and records that will be transferred with the system.

TABLE 4
Manuals, Drawings, and Records
Electrical System, Dobbins ARB

| Qty | Item | Description | Remarks |
|-----|------|-------------|---------|
| | None | | |
| | | | |

J1.3 Specific Service Requirements

The service requirements and standards for the Dobbins ARB electrical distribution system are as defined in the Section C, *Description/Specifications/Work Statement*, and Section H, *Special Contract Provisions*. The following requirements are specific to the Dobbins ARB electrical distribution system and are in addition to those found in Sections C or H. If there is a conflict between requirements described below and Sections C or H, the requirements listed below take precedence over those found in Sections C or H.

J1.3.1 Replacing Overhead Electric with Underground Electric

The Contractor shall replace existing electrical overhead system equipment with new underground service when the existing system undergoes a major repair project during the normal renewal process or when new electrical distribution facilities are added to the system, unless to do so would cause the Contractor to violate any applicable law or regulation or would be inconsistent with sound utility operational practices.

For each project, the Contractor shall provide the project scope and a lump-sum cost estimate to provide underground electrical distribution with cost differences for each option, if any, clearly identified. The estimated project costs shall include the direct cost for labor, materials, equipment, supplies, and purchased services, which may be burdened by applying standard administration, engineering, and supervisory overhead rate(s) and margins. It shall also include life cycle costs for operation and maintenance of the electrical distribution system for each option. The Government will not be responsible for any cost of system expansion or service connection that does not directly benefit the Government.

J1.3.2 THREAT Compliance

The Contractor must comply with all THREAT conditions that may exist prior to arrival or arise while on base. The Contractor is advised that THREAT conditions can vary daily at Dobbins ARB. The Contractor is further advised that THREAT conditions may cause delays in access.

J1.4 Current Service Arrangement

Dobbins ARB receives electricity from Georgia Power Company (GPC) via the Lockheed Substation (Owned and operated by Lockheed Martin). The Lockheed substation is located on the north side of Air Force Plant No. 6 (an aircraft manufacturing plant operated by Lockheed Martin Aeronautical Systems Corporation). The power from the Lockheed Substation enters the base via one of two feeders (#17 is the primary feeder, and #18 is a back-up) and distributed over the government-owned equipment. The nominal distribution voltage to Dobbins from the Lockheed substation is 12.47 kV Delta. The voltage is regulated to 11.97 kV at the point where Dobbins ARB takes over ownership.

Power is measured at 23 locations other than the master meter for reimbursable tenant organizations. The locations include the Credit Union; Civil Air Patrol Trailer; House S-145; POL Truck Park; North/South Runway Pole H36, U-125 Building Pump Station, BX, and several other Army National Guard, Marine, and Naval Air Station facilities located within the installation boundaries.

A government-owned, electronically controlled 3-shot circuit recloser and regulator bank is located adjacent to Industrial Drive north of Building 530 (BX). The recloser provides the main feeder fault protection for the system. Further protection on the system is provided by either fused cut-out or gang-operated switching devices at various locations on the base.

J1.5 Secondary Metering

J1.5.1 Existing Secondary Meters

Table 5 provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. The Contractor shall provide meter readings for all secondary meters IAW Paragraph C.3 and J1.6 below.

TABLE 5
Existing Secondary Meters
Electrical System, Dobbins ARB

| Utility System | Meter Number | Facility ID | Facility Name/Description |
|----------------|--------------|-------------|----------------------------------|
| | | | |
| Elect | N/A | 530 | BX, B 530 (MWR) |
| Elect | N/A | 554 | B 554 (Army Guard) |
| Elect | N/A | 555 | B 555 (Army Guard) |
| Elect | N/A | 600 | B 600 |
| Elect | N/A | 806 | Club, B 806 (MWR) |
| Elect | N/A | 826 | B 826 (ANG) |
| Elect | N/A | 831 | Rear of B 831 |
| Elect | N/A | 838 | B 838 (AF, ANG, Navy) |
| Elect | N/A | 935 | B 935 |
| Elect | N/A | 1011-1013 | Army Reserve (B1011-1013) |
| Elect | N/A | 1017 | B 1017 NAS (Trailer) |
| Elect | N/A | 1040 | B 1040 (ANG Munitions) |
| Elect | N/A | N/A | C.A.P. Trailer |
| Elect | N/A | N/A | Credit Union Building |
| Elect | N/A | N/A | Fiber Optics Relay Station |
| Elect | N/A | N/A | House S-145 (C.A.P.) |
| Elect | N/A | N/A | Marine |
| Elect | N/A | N/A | Navy |
| Elect | N/A | N/A | North/South Runway Pole H36 |
| Elect | N/A | N/A | POL Truck Park |
| Elect | N/A | N/A | Pole Reading (ANG) |
| Elect | 92554029 | U-125 | U-125 Bldg Pump Station (Credit) |
| | N/A | N/A | Vehicle Maintenance (Navy) |

J1.5.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in **Table 6**. New secondary meters shall be installed IAW Paragraph C.13, Transition Plan. After installation, the Contractor shall maintain and read these meters IAW Paragraphs C.3 and J1.6 below.

TABLE 6
New Secondary Meters
Electrical System, Dobbins ARB

| Meter Location | Meter Description |
|----------------|---------------------|
| B 708 | Sewage Lift Station |
| B 805 | Sewage Lift Station |
| B 828 | Sewage Lift Station |
| B 955 | Sewage Lift Station |

J1.6 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. Invoice (IAW G.2). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25th of each month for the previous month. Invoices shall be submitted to:

Name: 94 SPTG/CEOC
Address: 1392 Second Street, Bldg 827
Dobbins ARB, GA 30069-4823
Phone number: 770-919-5650

2. Outage Report. The Contractor's monthly outage report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to:

Name: 94 SPTG /CEOC
Address: 1392 Second Street, Bldg 827
Dobbins ARB, GA 30069-4823
Phone number: 770-919-5650

3. Meter Reading Report. The monthly meter reading report shall show the current and previous month readings for all secondary meters. The Contractor's monthly meter reading report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Meter reading reports shall be submitted by the 15th of each month for the previous month. Meter reading reports shall be submitted to:

Name: 94 SPTG /CEOC
Address: 1392 Second Street, Bldg 827
Dobbins ARB, GA 30069-4823
Phone number: 770-919-5650

4. System Efficiency Report. If required by Paragraph C.3, the Contractor shall submit a system efficiency report in a format proposed by the Contractor and accepted by the Contracting Officer. System efficiency reports shall be submitted by the 25th of each month for the previous month. System efficiency reports shall be submitted to:

Name: 94 SPTG /CEOC
Address: 1392 Second Street, Bldg 827
Dobbins ARB, GA 30069-4823
Phone number: 770-919-5650

J1.7 Energy Saving Projects

IAW Paragraph C.3, Requirement, the following projects have been implemented on the distribution system by the Government for energy conservation purposes:

None

J1.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the Dobbins ARB boundaries.

J1.9 Off-Installation Sites

No off-installation sites are included in the sale of the Dobbins ARB electric distribution system.

J1.10 Specific Transition Requirements

IAW Paragraph C.13, Transition Plan, **Table 7** provides a listing of service connections and disconnections required upon transfer.

TABLE 7
Service Connections and Disconnections
Electrical System, Dobbins ARB

| Location | Description |
|----------|-------------|
|----------|-------------|

| | |
|------|--|
| None | |
| | |

J1.11 Government Recognized System Deficiencies

Table 8 provides a listing of the system improvements that the Government has planned. The Government recognizes these improvement projects as representing current deficiencies associated with the Dobbins ARB electric distribution system. If the system is sold, the Government will not accomplish these planned improvements. The Contractor shall make a determination as to its actual need to accomplish and the timing of any and all such planned improvements. Capital upgrade projects shall be proposed through the Capital Upgrades and Renewal and Replacements Plan process and will be recovered through Schedule L-3.. Renewal and Replacement projects will be recovered through Sub-CLIN AB.

TABLE 8
System Deficiencies
Electrical System, Dobbins ARB

| Project Location | Project Description |
|--------------------------|--------------------------------------|
| Dobbins ARB | |
| Dobbins ARB-FGWB920024P1 | Revitalize Primary Electric, Phase 1 |
| Dobbins ARB-FGWB920024P2 | Revitalize Primary Electric, Phase 2 |
| Dobbins ARB-FGWB940005 | Repair Electrical Manholes |
| Dobbins ARB-FGWB949005 | Upgrade Electrical Distribution |